

REMARKS

Claims 1-23 remain pending.

Applicants had previously overcome a rejection of the claims in view of various combinations of Sherman, Gruenwald, Suntola, Suzuki, and other art. In response to Applicants' previous arguments, the Examiner dropped the previous rejection and is now making a new rejection in view of Patent 5,516,367 to Lei. As will be shown, Lei adds nothing of significance to the combination previously distinguished by Applicants.

Claim 1 recites:

1. A method comprising the acts of:

supplying an atomic layer deposition process gas to a process chamber, wherein a gas flow conductance is defined for gas exiting the chamber; and

varying a flux of the deposition process gas to a substrate in the process chamber by varying the gas flow conductance;

wherein varying the gas flow conductance comprises translating a feature substantially circumscribing a periphery of the substrate, forming a variable aperture.

Applicants' previous successful argument emphasized that the prior art does not suggest "wherein varying the gas flow conductance comprises translating a feature substantially circumscribing a periphery of the substrate, forming a variable aperture." The Examiner admits in the present office action that Gruenwald fails to teach "that the translating feature circumscribes the substrate." It must be noted that the **Gruenwald valve does not translate, but rotates**. So no cited prior art variable aperture translates and substantially circumscribes a periphery of the substrate.

The Examiner now relies on Lei for somehow suggesting to modify Gruenwald's valve to translate and substantially circumscribe a periphery of the substrate. However, Lei describes **fixed openings** for exhaust gasses (Figs. 8 and 9). Fig. 8 is a top down view of an opening 242 around the wafer 14. The opening 242 does not translate or change in any way so has absolutely nothing to do with varying the conductance of gas flow, which is the focus of Applicants' invention. As shown in Fig. 9, between the opening 242 and the wafer is a


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hollow channel 250 with vertical openings 248 to more uniformly withdraw the gasses. The openings 248 do not translate or change so have absolutely nothing to do with varying the conductance of gas flow.


Given that Gruenwald's flow controller does not translate and does not substantially circumscribe a periphery of the substrate, there could not be any suggestion by Lei's fixed openings 248 to modify Gruenwald's flow controller to translate and substantially circumscribe a periphery of the substrate. It is respectfully submitted that the Examiner's conclusion is based on hindsight.

Independent Claims 19 and 20 are allowable for similar reasons since they both include the feature of translating a feature substantially circumscribing a periphery of the substrate, forming a variable aperture.

Accordingly, the Examiner has not met his burden of proof, and it is requested that the Examiner issue a Notice of Allowance for all Claims 1-23. If the Examiner's next action is other than the allowance of the claims, the Examiner is respectfully requested to call Applicant's attorney at (408) 382-0480 x202.

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Respectfully submitted,



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